

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated September 17, 2004 has been received and its contents carefully reviewed.

By this Response, Applicant has amended the specification and claims 29, 34-35 and 43-45. No new matter has been added. Claims 29-47 are pending in the application with claim 47 being withdrawn from consideration. Reconsideration and withdrawal of the objections and rejections in view of the above amendments and the following remarks are respectfully requested.

Applicant notes the Examiner has indicated the information disclosure statement filed on August 29, 2003 does not comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which cause it to be listed. Applicant respectfully disagrees and kindly directs the Examiner's attention to 37 CFR 1.98(d)(1) which provides "a copy of any patent, publication, pending U.S. application or other information... is required to be provided... unless: (1) the earlier application is properly identified in the information disclosure statement and is relied on for an earlier effective filing date under 35 U.S.C. § 120". Applicant respectfully submits an express statement was made in the information statement filed on August 29, 2003 to identify the present application to properly identify the earlier filed application serial number 09/860,590, filed May 21, 2001 and relied upon for an earlier filing date under 35 U.S.C. § 120. As support, Applicant attaches a copy of the Information Disclosure Statement that was filed on August 29, 2003. Applicant respectfully request that identified references be considered.

In the Office Action, claims 34 and 35 are objected to because of informalities. Applicant has amended claims 34 and 35. Accordingly, the objections are overcome. Withdrawal of the objections are requested.

In the Office Action, claims 29-33 and 37-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,351,300, issued to Park et al. (hereafter "Park") in view of U.S. Patent No. 6,014,190, issued to Kim et al. (hereafter "Kim"), and further in view of

U.S. Patent No. 6,122,030, issued to Nagata et al. (hereafter "Nagata"). Additionally, claims 34 and 43-44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Kim and Nagata, and further in view of U.S. Patent No. 6,486,933, issued to Cha et al. (hereafter "Cha"). Applicant respectfully traverses the rejections because neither Park, Kim, Nagata, nor Cha, analyzed alone or in any combination, teaches or suggests the combined features recited in the claims of the present application. For example, Park, Kim, Nagata and Cha fail to teach or suggest an in-plane switching liquid crystal display device that includes, among other features, "a second insulating layer of an organic material over the first substrate; pixel electrodes on the second insulating layer; common electrodes on the second insulating layer, wherein the common electrodes and pixel electrodes form an alternating pattern" as recited in independent claim 1.

The Office concedes that Park fails to teach or suggest the combined features of the present application and relies upon the teachings of Kim, Nagata and Cha to remedy the deficient teachings. Based upon the teachings of Kim, Nagata, and Cha, the Office Action alleges that it would have been obvious to modify the device in Kim by the teachings of Kim, Nagata and Cha to obtain an in-plane switching liquid crystal display device having the combined features recited in claim 1. Applicant respectfully disagrees.

Kim discloses a liquid crystal display having "a plurality of common electrodes and a gate line formed on the substrate in a first direction and in a second direction, respectively, and a gate insulating layer formed thereon. A pixel electrode is formed between the common electrodes in the second direction, and a data line connected to the pixel electrode is formed on the gate insulating layer along the common electrode to be overlapped with the gate insulating layer" (Col. 3, lines 29-36). Nagata discloses a twisted nematic (TN) mode liquid crystal display in which "an organic polymer thin film such as acrylic resin is used as the insulating film" (Col. 2, lines 6-8). And, Cha discloses a liquid crystal display in which "an insulating film covers the... common electrodes. A second common electrode is formed on the insulating film and arranged parallel to the data lines" (see, Abstract and FIG. 7). However, Applicant submits neither Kim, Nagata nor Cha remedy the deficient teachings of Park. Further, Kim, Nagata and Cha fail to provide motivation to one of ordinary skill in the art to modify the device in Park to obtain an in-plane switching liquid crystal display device having the combined features recited in independent claim 1. Because Park, Kim, Nagata and Cha fail to teach or suggest the combined

features recited in independent claim 1, claim 1 and its dependent claims 30-34 are allowable over any combination of Park, Kim, Nagata and Cha.

Independent claim 37 is allowable over Park, Kim, Nagata and Cha because neither Park, Kim, Nagata nor Cha, analyzed alone or in any combination, teaches or suggests the combined features recited in claim 37. For example, Park, Kim, Nagata and Cha fail to teach or suggest a method of fabricating an in-plane switching liquid crystal display device that includes, among other features, “forming a second insulating layer of an organic material over the first insulating layer, the second metal and the active layer, the second insulating layer having a contact hole; depositing and patterning a conductive material on the second insulating layer to form pixel electrodes and common electrodes on the second insulating layer” as recited in independent claim 37 of the present application. Because Park, Kim, Nagata and Cha fail to teach or suggest at least these features of independent claim 37, claim 37 and its dependent claims 38-44 are allowable over any combination of Park, Kim, Nagata and Cha.

Reconsideration and withdrawal of the rejections of claims 29-34 and 37-44 are respectfully requested.

In the Office Action, claims 35 and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Kim, Nagata and further in view of U.S. Patent No. 6,414,729, issued to Akiyama et al. (hereafter “Akiyama”); and claims 36 and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Park, Kim, Nagata and further in view of U.S. Patent No. 5,680,190, issued to Michibayashi et al. (hereafter “Michibayashi”). Applicant respectfully traverses the rejections because neither Park, Kim, Nagata, Akiyama, nor Michibayashi, analyzed alone or in any combination, teaches or suggests the combined features recited in the claims of the present application. In particular, Park, Kim, Nagata, Akiyama and Michibayashi fail to teach or suggest an in-plane switching liquid crystal display device that includes, among other features, “a second insulating layer of an organic material over the first substrate; pixel electrodes on the second insulating layer; common electrodes on the second insulating layer” as recited in independent claim 29, from which claims 35 and 36 depend. By virtue of their dependence from independent claim 29, claims 35 and 36 also contain the allowable features of independent claim 29 discussed above.

Akiyama discloses “a liquid crystal display device including a plurality of pixel electrodes and a plurality of liquid crystal layers stacked alternately” (Abstract). Michibayashi discloses a method for a twisted nematic (TN) LCD in which a double-layered pixel electrode structure is used to enlarge the viewing angle (see, Col. 1, lines 41-53). However, Applicant submits Akiyama and Michibayashi fail to remedy the deficient teachings of Park, Kim and Nagata.

Additionally, neither Park, Kim, Nagata, Akiyama nor Michibayashi, analyzed alone or in any combination, teaches or suggests the combined features recited in independent claim 37. Specifically, Park, Kim, Nagata, Akiyama and Michibayashi fail to teach or suggest a method of fabricating an in-plane switching liquid crystal display device including, among other features, “forming a second insulating layer of an organic material over the first insulating layer, the second metal and the active layer, the second insulating layer having a contact hole; depositing and patterning a conductive material on the second insulating layer to form pixel electrodes and common electrodes on the second insulating layer” as recited in independent claim 37, from which claims 45 and 46 depend. By virtue of their dependence from independent claim 37, claims 45 and 46 also contain the allowable features recited in independent claim 37. Because Park, Kim, Nagata, Akiyama and Michibayashi fail to teach or suggest this feature of claim 37, claim 37 and its dependent claims 45 and 46 are allowable over any combination of Park, Kim, Nagata, Akiyama and Michibayashi.

Reconsideration and withdrawal of the rejections of claims 35-36 and 45-46 are respectfully requested.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

Application No.: 10/651,104
Amendment Dated: December 16, 2004
Reply to Office Action dated September 17, 2004

Docket No.:8733.432.20

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: December 16, 2004

Respectfully submitted,

By Valerie P. Hayes

Valerie P. Hayes

Registration No.: 53,005

McKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W.

Washington, DC 20006

(202) 496-7500

Attorneys for Applicant

Application No.: 10/651,104
Amendment Dated: December 16, 2004
Reply to Office Action dated September 17, 2004

Docket No.:8733.432.20

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: December 16, 2004

Respectfully submitted,

By Valerie P. Hayes

Valerie P. Hayes

Registration No.: 53,005

McKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W.

Washington, DC 20006

(202) 496-7500

Attorneys for Applicant